

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (original): In a wireless communications network, a method for coordinating access to a shared transmission medium, said method comprising:

upon admission of a new node, recording at a master node a contact path from said master node to said new node;

at said master node, generating a schedule of wireless transmission for nodes of said wireless communication network, said schedule precluding collisions between simultaneous transmission by any pair of nodes controlled by said master node including pairs of nodes that do not hear each other's transmissions; and

distributing said schedule from said master node to nodes controlled by said master node.

Claim 2 (original): The method of claim 1 wherein said schedule comprises time slots allocated to nodes that can be directly contacted by said master node.

Claim 3 (original): The method of claim 2 wherein at least one of said time slots includes a subslot allocated for transmission by a node that cannot be directly contacted by said master node.

Claim 4 (original): The method of claim 1 wherein recording said contact path comprises registering a link usable to communicate to said new node to a routing client.

Claim 5 (original): In a wireless communication network, a method for coordinating access to a shared transmission medium, said method comprising:

at a selected wireless node of said network, receiving registration information from a newly contactable node;

forwarding said registration information from said selected wireless node to a master node;

at said selected wireless node, receiving from said master node, a time allocation for transmission by said newly contactable node; and

transmitting said time allocation for transmission by said newly contactable node to said newly contactable node.

Claim 6 (original): The method of claim 5 further comprising:

at said selected wireless node, receiving a data transmission during a timeslot defined by said time allocation; and

forwarding said data transmission to said master node.

Claim 7 (previously presented): In a wireless communication network, a method for coordinating access to a shared transmission medium, said method comprising:

generating a transmission schedule at a master node; and

distributing said transmission schedule from said master node to other nodes of said wireless communication network; and

wherein said transmission schedule is divided into time slots, at least one time slot being allocated for transmission from a first node that can be directly contacted by said master node to said master node and for transmission from a second node that cannot be directly contacted by said master node but can be directly contacted by said first node.

Claim 8 (original): Apparatus for operating a master node of a wireless communication network, said apparatus comprising:

a wireless interface that communicates information via a wireless transmission medium and that receives a transmission originating with a new node of said wireless communication network; and

a processor that:

records a contact path from said master node to said new node;

generates a schedule of transmission via a shared transmission medium by nodes of said wireless communication network, said schedule precluding simultaneous transmission by any pair of nodes controlled by said master node including pairs of nodes that do not hear each other's transmissions; and

distributes said schedule to other nodes of said wireless communication network.

Claim 9 (original): The apparatus of claim 8 wherein said schedule comprises time slots allocated to nodes that can be directly contacted by said master node.

Claim 10 (original): The apparatus of claim 9 wherein at least one of said slots includes a subslot allocated for transmission by a node that cannot be directly contacted by said master node.

Claim 11 (original): The apparatus of claim 8 wherein said processor registers a link usable to communicate to said new node to a routing client.

Claim 12 (original): In a wireless communication network, apparatus for operating a selected node of a wireless communication network, said apparatus comprising:

a wireless interface that communicates information via a wireless transmission medium and that receives a transmission from a new node of said wireless communication network, said transmission comprising registration information for said new node; and

a processor that:

forwards said registration information to a master node of said wireless communication network;

receives from said master node a time allocation for transmission by said new node; and

transmits to said new node said time allocation for transmission by said new node.

Claim 13 (original): The apparatus of claim 12 wherein said processor:  
receives a data transmission during a time slot defined by said time allocation; and  
forwards said data transmission to said master node.

Claim 14 (previously presented): In a wireless communication network,  
apparatus for operating a master node of said communication network, said apparatus  
comprising:

a wireless interface that transmits and receives via a wireless transmission  
medium; and

a processor that:

generates a transmission schedule for nodes of said communication  
network; and

distributes said transmission schedule from said master node to other  
nodes of said wireless communication network; and

wherein said transmission schedule is divided into time slots, at least one  
time slot being allocated for transmission from a first node that can be directly contacted by said  
master node to said master node and for transmission from a second node that cannot be directly  
contacted by said master node but can be directly contacted by said first node.

Claim 15 (original): In a wireless communication network, a computer program  
product for coordinating access to a shared transmission medium, said product comprising:

code that, upon admission of a new node to said wireless communication network,  
records at a master node a contact path from said master node to said slave node;

code that, at said master node, generates a schedule of wireless transmission for  
nodes of said wireless communication network, said schedule precluding simultaneous  
transmission by any pair of nodes controlled by said master node including pairs of nodes that do  
not hear each other's transmissions;

code that distributes said schedule from said master node to nodes controlled by  
said master node; and

a computer-readable storage medium that stores the codes.

Claim 16 (original): The product of claim 15 wherein said schedule comprises time slots allocated to nodes that can be directly contacted by said master node.

Claim 17 (previously presented): The product of claim 16 wherein at least one of said slots includes a subslot allocated for transmission by a node that cannot be directly contacted by said master node.

Claim 18 (original): The product of claim 15 wherein said code that records said contact path comprises code that registers a link usable to communicate to said new node to a routing client.

Claim 19 (original): In a wireless communication network, a computer program product for operating a selected node of said wireless communication network, said product comprising:

- code that receives registration information from a newly contactable node;
- code that forwards said registration information to a master node;
- code that, at said selected wireless node, receives from said master node, a time allocation for transmission by said newly contactable node;
- code that transmits said time allocation for transmission by said newly contactable node to said newly contactable node; and
- a computer-readable medium for storing the codes.

Claim 20 (original): The product of claim 19 further comprising:

- code that, at said selected wireless node, receives a data transmission during a timeslot defined by said time allocation; and
- code that forwards said data transmission to said master node.

Claim 21 (previously presented): In a wireless communication network, a computer program product for coordinating access to a shared transmission medium, said product comprising:

- code that generates a transmission schedule at a master node;
- code that distributes said transmission schedule from said master node to other nodes of said wireless communication network; and
- a computer-readable storage medium for storing the codes; and

wherein said transmission schedule is divided into time slots, at least one time slot being allocated for transmission from a first node that can be directly contacted by said master node to said master node and for transmission from a second node that cannot be directly contacted by said master node but can be directly contacted by said first node.

Claim 22 (original): In a wireless communications network, apparatus for coordinating access to a shared transmission medium, said apparatus comprising:

- means for recording at a master node a contact path from said master node to a new node;
- means for, at said master node, generating a schedule of wireless transmission for nodes of said wireless communication network, said schedule precluding simultaneous transmission by any pair of nodes controlled by said master node including pairs of nodes that do not hear each other's transmissions; and
- means for distributing said schedule from said master node to nodes controlled by said master node.

Claim 23 (original): In a wireless communication network, apparatus for coordinating access to a shared transmission medium, said apparatus comprising:

- means for, at a selected wireless node of said network, receiving registration information from a newly contactable node;
- means for forwarding said registration information from said selected wireless node to a master node;

means for, at said selected wireless node, receiving from said master node, a time allocation for transmission by said newly contactable node; and

means for transmitting said time allocation for transmission by said newly contactable node to said newly contactable node.